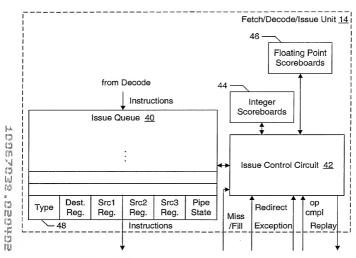




FIG. 1



to Integer Units 22A-22B, FPUs 24A-24B, and L/S Units 26A-26B

FIG. 2

6				Ex2 (Add)	
ω			Wr	Ex1 (Add)	
7 (Grad.)	Grad.	Grad.	Ex4	Ex4 (Mul) RR (Add)	
9			EX3	Ex3 (Mul)	
r2		W	EX 5	(Mul)	
4 (Replay)	W	Exe	EX 1	Ex1 (Mul)	
en -	Cache	H H	H H	RR	
7	TLB	Skew2	Skew2	Skew2	
-	AGen	Skew1	Skew1	Skew1	
(enssl)	lssue RR	enssı	enssı	enssi	
	L/S Pipes	Int. Pipes	FP Pipes	FP Madd	

FIG. 3

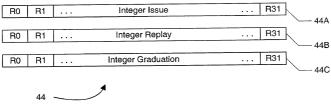


FIG. 4

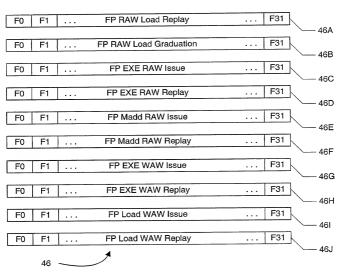


FIG. 5

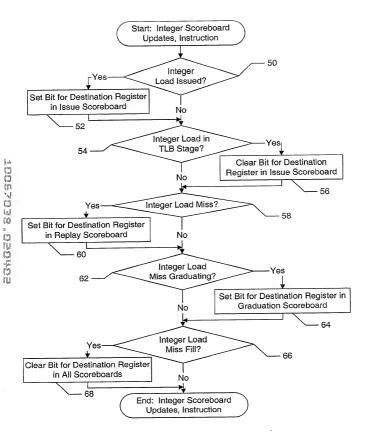


FIG. 6

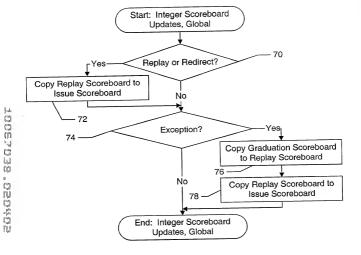


FIG. 7

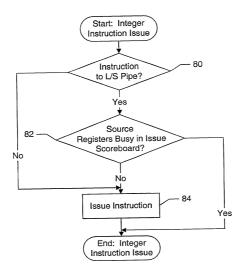


FIG. 8

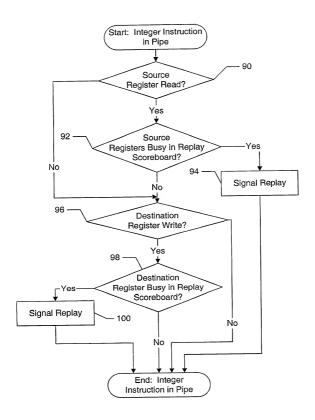


FIG. 9

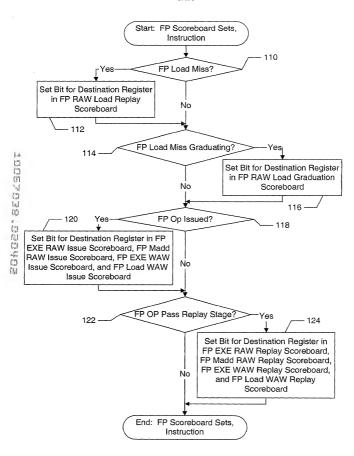
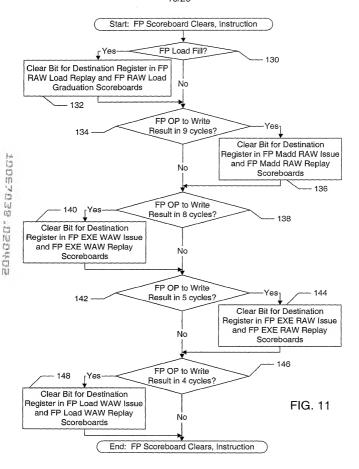


FIG. 10



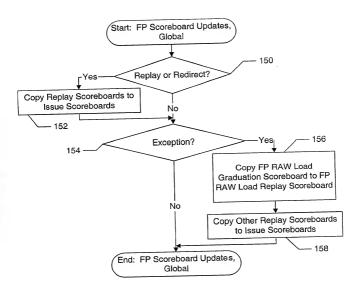


FIG. 12

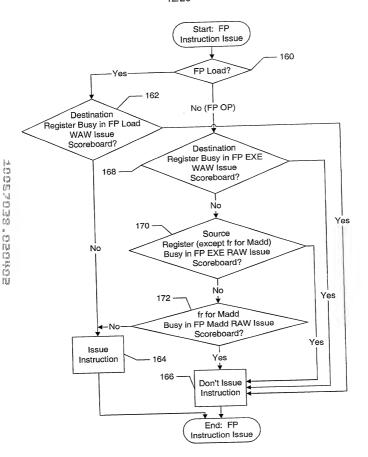
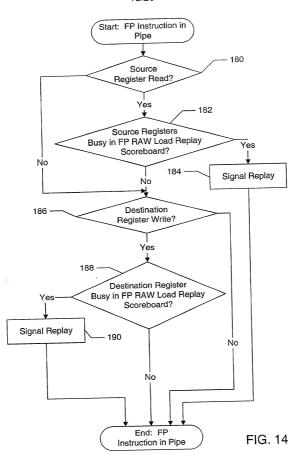


FIG. 13



6+N		, w
- 8+N	ExN+8	Ex4 RR (fr)
Z+N	ExN+7	EX3
9+N	ExN+6 W bit	EX
N+5	ExN+4 ExN+5 ExN Clear FP Madd RAW bit	Ä
N+4	ExN+4 ExN+5 ExN+6 Clear FP Madd RAW bit	Æ
N+3	ExN+3	Skew2
N+2	ExN+2	Skew1
N +1	EXN+1	enssi
z	Z X	
	FP 0P	Dep Madd Op (on fr)

FIG. 15

4 °		W
6 + N	×	EX4
8+N	ExN+8	Ж3
Z+2	ExN+7	Ä Z
9 4 V	ExN+4 ExN+5 ExN+6 Clear FP EXE WAW bit	Ä
N+5	EXN+4 EXN+5 EXN Clear FP EXE WA/W bit	R
Ş 4	ExN+4 Clear FF	Skew2
8 + Z	ExN+3	Skew1
N+2	ExN+2	enss
, + 1	E×N+1	-
z	Ä X X	
	ГР ОР	Dep FP Op (WAW)

FIG. 16

6+N	Wr	Ä
N+8	ExN+8	AR
V+7	4+6 EXN+7 EXN+8 Clear FP EXE RAW bit	Skew2
9+N	ExN+6	Skew1
N+5	ExN+5	Issue
N 4+	ExN+4	
N+3	ExN+3	
N+2	ExN+2	
Ž †	EXN+1	
z	EXN	
	FP OP	Dep FP Op (RAW)

10 1

6+N		×
N+8	Wr	Cache
N+7	Ex4 WAW bit	TB
9+N	x2 Ex3 Ex4 Clear FP Load WAW bit	AGen
N+5	Ex2 Clear	Issue
N+4	EX	-
N+3	RR	
N+2	Skew2	
N + 1	Skew1	
z	enss	
	FP OP	Dep Ld (WAW)

FIG. 18

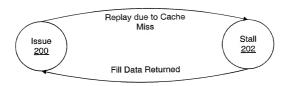


FIG. 19

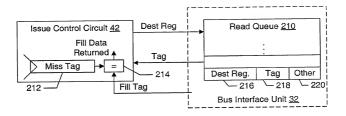
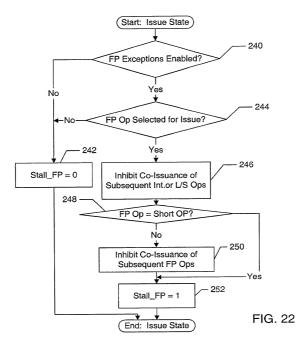


FIG. 20



FIG. 21



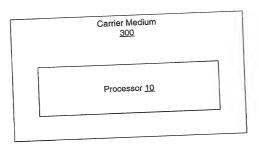


FIG. 23